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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Stephen Jourdan

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EXAMINER

MOLL, JESSE R

ART UNIT

PAPER NUMBER

2181

MAIL DATE

DELIVERY MODE

04/29/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/608,624	Applicant(s) JOURDAN ET AL.	
	Examiner JESSE R. MOLL	Art Unit 2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-20,22-30 and 38-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-7,9-14,23-27 and 41-43 is/are allowed.
- 6) ☒ Claim(s) 1,2,16,20,28-30,38 and 39 is/are rejected.
- 7) ☒ Claim(s) 3,15,17-19,22 and 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Appeal Brief

1. In view of the Supplemental Appeal Brief filed on 1/13/06, PROSECUTION IS HEREBY REOPENED. The Office Action with the new ground(s) of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Alford W. Kindred/

Supervisory Patent Examiner, Art Unit 2163.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 28-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims to computer-related inventions that are clearly nonstatutory fall into the same general categories as nonstatutory claims in other arts, namely natural phenomena such as magnetism, and abstract ideas or laws of nature which constitute "descriptive material." Abstract ideas, Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759, or the mere manipulation of abstract ideas, Schrader, 22 F.3d at 292-93, 30 USPQ2d at 1457-58, are not patentable. Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data (See MPEP section 2106, IV, B, 1).

Regarding Claim 28, as set forth above, a trace is a sequence of executed instructions (see Page 1, lines 16 of the specification). It comprises such as address data of the executed instructions. Data per se is non-statutory. Therefore, this claim is non-statutory. Even if it is somehow determined to be functional descriptive material, they're then just functional descriptive material, per se. Merely claiming functional descriptive material does not make it statutory. Similar problems exist in claims 29 and 30.

Claim Objections

4. Claim 15 is objected to because of the following informalities:
in claim 15, line 2, it is suggested to insert –extended- after “selected”.
Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1, 2, 16, 20, 28, 29, 38, and 39 are rejected under 35 U.S.C. 102(a and e) as being anticipated by Peled et al. (U.S. Patent No. 6,076,144), hereinafter referred to as Peled.

Referring to claim 1, Peled discloses as claimed: a memory entry (Data Array 200; see Figure 3 and Figure 11; see col. 3, lines 30-35), storing a trace (Basic Block B, see Figures 11 and 12; col. 14, lines 10-18) having a multiple-entry (LA2 and LA2'; see Figure 12; col. 14, lines 32-42 and 54-67; col. 15, lines 1-2), single exit (Last instruction in the B Block; B9; see Figure 11) architecture.

Referring to claim 16, Peled discloses as claimed: A processing engine (As shown in Figure 1), comprising: a front end stage (Stage including TBPU 110; see Figure 1) to store blocks (Such as block B for example; see col. 14, lines 32-48), of instructions in a multiple-entry (LA2 and LA2', see above regarding claim 1), single exit (Instruction B9; see above regarding claim 1) architecture when considered according to program flow, and an execution unit (Execution units 125; see Figure 1) in communication with the front end stage (See Figure 1).

Referring to claim 20, Peled discloses as claimed: apparatus, comprising a memory entry storing (See Figure 12; see above regarding claim 1) a sequence of program instructions (Instructions B1-9) as a trace (See col. 1; lines 50-60), the instructions defining a program flow that progresses (See col. 14; lines 35-45) from any instruction (All instructions B1-B8 will flow to instruction B9) therein to a last instruction

(Instruction B9; see above regarding claim 1) in the trace and in which the trace has multiple separate prefixes (LA2 and LA2'; see above regarding claim 1).

Referring to claim 28, Peled discloses as claimed: a trace (Basic Block B, see Figures 11 and 12; col. 14, lines 10-18), comprising a sequence of program instructions (Instructions B1-9) stored together (in Data Array 200; see Figure 3 and Figure 11; see col. 3, lines 30-35) assembled in order according to program flow, the sequence having a multiple-entry (LA2 and LA2', see above regarding claim 1), single exit (Last instruction in the B Block; B9; see Figure 11) architecture

Referring to claim 38, Peled discloses as claimed: a memory (Data Array 200; see Figure 3 and Figure 11; see col. 3, lines 30-35) having at least one memory entry (Entries in Data Array 200; see Figure 3) to store a trace having a (LA2 and LA2'; see Figure 12; col. 14, lines 32-42 and 54-67; col. 15, lines 1-2), single exit (Last instruction in the B Block; B9; see Figure 11) architecture.

Additionally, note that what the block is intended "to store" is immaterial. Therefore, the limitation, "a trace having a multiple entry, single exit architecture" does not provide any patentable weight.

As to claims 2, 29 and 39, Peled also discloses: the trace being a complex trace (The trace has multiple entry points making it more complex than one with a single entry

point) having multiple independent prefixes (LA2 and LA2'; see above regarding claim 1) and a common, shared suffix (Instruction B9; see above regarding claim 1).

Additionally note that in claim 39, "a trace is a complex trace having multiple independent prefixes and a common, shared suffix" to be stored is immaterial and the claim fails to further limit the subject matter from claim 38.

Allowable Subject Matter

Claims 4-7,9-14,23-27 and 41-43 are allowed.

Claims 3,15,17-19,22 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Appellant's arguments in Appeal Brief and Supplemental Appeal Brief mailed 6/28/05 and 1/13/06 respectively have been considered but are moot in view of the new explanation and the new ground(s) of rejection.

8. Applicant's arguments, filed 8/30/2007, with respect to 35 U.S.C. §112, first and second paragraph and the rejection of claims -3, 9-15, 20, 23-27, and 38-43 under

U.S.C. §101, and 35 U.S.C. §101 have been fully considered and are persuasive. The rejection of claims 23-27, and 41-43 under 35 U.S.C. 112, first paragraph and claims 1-3, 4-7, 20, 23-30, and 41-43 under 35 U.S.C. 112, second paragraph have been withdrawn.

9. Regarding 35 U.S.C. §101 problems of claims 28-30, Applicant's response has not completely overcome these rejections. Appellants do not make specific arguments directed to these rejections. Since a trace is merely a listing of instructions, is is merely software per se and therefore not statutory. Appellants even state (In claim 1 for example) that a trace is stored in a memory entry, showing that it is merely descriptive material able to be stored in a memory.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSE R. MOLL whose telephone number is (571)272-2703. The examiner can normally be reached on M-F 10:00 am - 6:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alford Kindred can be reached on (571)272-4037. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2181

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jesse R Moll
Examiner
Art Unit 2181

JM 4/28/2008
/Alford W. Kindred/
Supervisory Patent Examiner, Art Unit 2163